

Amendments to the Claims

Please amend the claims as follows, with deletions shown by strikethrough and additions shown by underlining:

Claims Listing

1. (Currently Amended) A composition comprising,
one or more nucleic acid sequences or one or more triplex DNA compounds, and
a nonionic block copolymer, wherein the block copolymer has the following
formula:



POP POE POP

wherein “b” represents a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_b$ is between approximately 750 and 20,000 Daltons, and “a” represents a number such that the percentage of hydrophile $(\text{C}_2\text{H}_4\text{O})_a$ is between approximately 1% and 90% of the weight of the block copolymer and wherein the composition further comprises approximately 0.1% to approximately 5% by weight of a surfactant and approximately 0.5% to approximately 5% by volume of a low molecular weight alcohol.

2. (Previously Presented) The composition of Claim 1, wherein:
“b” represents a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_b$ is between approximately 750 and 10,000 Daltons, and “a” represents a number such that the percentage of hydrophile $(\text{C}_2\text{H}_4\text{O})_a$ is between approximately 1% and 90% of the weight of the block copolymer.

3. (Currently Amended) The composition of Claim 1, wherein:

“b” represents a number such that the molecular weight of the hydrophobe $(C_3H_6O)_b$ is between approximately 2,000 and 10,000 Daltons“;”.

4. (Previously Presented) The composition of Claim 1, wherein:

“b” represents a number such that the molecular weight of the hydrophobe $(C_3H_6O)_b$ is approximately 2500 Daltons, and “a” represents a number such that the percentage of hydrophile $(C_2H_4O)_a$ is approximately 10% of the weight of the block copolymer.

5. (Previously Presented) The composition of Claim 1, wherein the one or more nucleic acid sequences are selected from genes, oligonucleotides, antisense oligonucleotides, or ribozymes.

6. (Cancelled)

7. (Currently Amended) The composition of Claim 6 “1”, wherein the surfactant is polyoxyethylene (20) sorbitan monooleate and the alcohol is ethanol.

8. (Previously Presented) The composition of Claim 1, further comprising an expression vector capable of expressing the one or more nucleic acid sequences.

9. (Currently Amended) A method of delivering one or more nucleic acid sequences to an animal comprising,

administering to the animal a composition comprising one or more nucleic acid sequences or one or more triplex DNA compounds, and a nonionic block copolymer, wherein the block copolymer has the following formula:



POP POE POP

wherein “b” represents a number such that the molecular weight of the hydrophobe $(C_3H_6O)_b$ is between approximately 750 and 20,000 Daltons, and “a” represents a number such that the percentage of hydrophile $(C_2H_4O)_a$ is between approximately 1% and 90% of the weight of the block copolymer and wherein the composition further comprises approximately 0.1% to approximately 5% by weight of a surfactant and approximately 0.5% to approximately 5% by volume of a low molecular weight alcohol.

10. (Previously Presented) The method of Claim 9, wherein:

“b” represents a number such that the molecular weight of the hydrophobe $(C_3H_6O)_b$ is between approximately 750 and 10,000 Daltons, and “a” represents a number such that the percentage of hydrophile $(C_2H_4O)_a$ is between approximately 1% and 90% of the weight of the block copolymer.

11. (Previously Presented) The method of Claim 9, wherein:

“b” represents a number such that the molecular weight of the hydrophobe $(C_3H_6O)_b$ is between approximately 2,000 and 10,000 Daltons, and “a” represents a number such that the percentage of hydrophile $(C_2H_4O)_a$ is between approximately 1% and 90% of the weight of the block copolymer.

12. (Previously Presented) The method of Claim 9, wherein:

“b” represents a number such that the molecular weight of the hydrophobe $(C_3H_6O)_b$ is approximately 2500 Daltons, and “a” represents a number such that the percentage of hydrophile $(C_2H_4O)_a$ is approximately 10% of the weight of the block copolymer.

13. (Previously Presented) The method of Claim 9, wherein the one or more nucleic acid sequences are selected from genes, oligonucleotides, antisense oligonucleotides, or ribozymes.

14. (Cancelled)

15. (Currently Amended) The method of Claim 14 “9”, wherein the surfactant is polyoxyethylene (20) sorbitan monooleate and the alcohol is ethanol.

16. (Previously Presented) The method of Claim 9, wherein the composition further comprises an expression vector capable of expressing the one or more nucleic acid sequences.

17. (Previously Presented) The composition of Claim 1, wherein:

“b” represents a number such that the molecular weight of the hydrophobe $(C_3H_6O)_b$ is between approximately 3,250 and 20,000 Daltons.

18. (Previously Presented) The composition of Claim 1, wherein:

“b” represents a number such that the molecular weight of the hydrophobe $(C_3H_6O)_b$ is between approximately 5,000 and 20,000 Daltons.

19. (Previously Presented) The composition of Claim 1, wherein:

“b” represents a number such that the molecular weight of the hydrophobe $(C_3H_6O)_b$ is between approximately 7,000 and 20,000 Daltons.

20. (Previously Presented) The composition of Claim 17, wherein the one or more nucleic acid sequences are selected from genes, oligonucleotides, antisense oligonucleotides, or ribozymes.

21. (Previously Presented) The composition of Claim 1, wherein:

“a” represents a number such that the percentage of hydrophile $(C_2H_4O)_a$ is greater than about 1% and less than 10% of the weight of the block copolymer.

22. (Previously Presented) The composition of Claim 1, wherein:

“a” represents a number such that the percentage of hydrophile (C₂H₄O)_a is greater than 80% and less than about 90% of the weight of the block copolymer.

23. (Previously Presented) The method of Claim 9, wherein:

“b” represents a number such that the molecular weight of the hydrophobe (C₃H₆O)_b is between approximately 3,250 and 20,000 Daltons.

24. (Previously Presented) The method of Claim 9, wherein:

“b” represents a number such that the molecular weight of the hydrophobe (C₃H₆O)_b is between approximately 5,000 and 20,000 Daltons.

25. (Previously Presented) The method of Claim 9, wherein:

“b” represents a number such that the molecular weight of the hydrophobe (C₃H₆O)_b is between approximately 7,000 and 20,000 Daltons.

26. (Previously Presented) The method of Claim 23, wherein the one or more nucleic acid sequences are selected from genes, oligonucleotides, antisense oligonucleotides, or ribozymes.

27. (Previously Presented) The method of Claim 9, wherein:

“a” represents a number such that the percentage of hydrophile (C₂H₄O)_a is greater than about 1% and less than 10% of the weight of the block copolymer.

28. (Previously Presented) The method of Claim 9, wherein:

“a” represents a number such that the percentage of hydrophile (C₂H₄O)_a is greater than 80% and less than about 90% of the weight of the block copolymer.